

**VALE ROYAL LOCAL PLAN  
LONGWOOD  
Agricultural Land Classification  
ALC Map and Report  
November 1995  
(Report Amended August 1997)**

**M J Wood  
Resource Planning Team  
Northern Region  
FRCA Wolverhampton**

**RPT Reference: 69/95 & 25/RPT/0205  
FRCA Reference: EL 06/10520  
LURET Job Number: ME1AX7Y**

**AGRICULTURAL LAND CLASSIFICATION REPORT  
VALE ROYAL LOCAL PLAN  
LONGWOOD**

**INTRODUCTION**

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 41.2 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located east of Lostock Gralam. The survey was in connection with the Vale Royal Local Plan.
2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) in November 1995 by the Resource Planning Team now of the Farming and Rural Conservation Agency (FRCA)- Northern region of FRCA.
3. The land has been graded in accordance with the publication "Agricultural Land Classification of England and Wales - Revised guidelines and criteria for grading the quality of agricultural land" (MAFF 1988) .
4. At the time of survey the agricultural land on this site was under either cereals or fallow.

**SUMMARY**

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10000 with an average auger boring density of 1 per hectare. The ALC map is only accurate at this base map scale and any enlargement would be misleading.
6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
1	-		
2	-		
3a	12.2	40	30
3b	18.2	60	44
4			
5			
Agricultural land not surveyed	-	N/A	
Other land	10.8	N/A	26
Total surveyed area	30.4	100	
Total site area	41.2		100



7. The agricultural land on this site has been classified as Subgrade 3a (good quality) and Subgrade 3b (moderate quality). The key limitation to the agricultural use of this land is soil wetness.

8. The area of good quality land is located mainly in the north of the site. The soils commonly comprise a sandy clay loam overlying either sandy clay loam and clay or sandy clay loam to depth.

9. The area of moderate quality land is mapped in the south of the site. The soils comprise a sandy clay loam over either sandy clay loam and clay or sandy clay loam to depth.

## FACTORS INFLUENCING ALC GRADE

### Climate

10. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

11. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5km grid datasets using standard interpolation procedures (Meteorological Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	SJ 703 744
Altitude	m, AOD	
Accumulated Temperature	day°C (Jan-June)	1423
Average Annual Rainfall	mm	779
Field Capacity Days	days	185
Moisture Deficit, Wheat	mm	93
Moisture Deficit, Potatoes	mm	82
Overall climatic grade	N/A	Grade 1

12. The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

13. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (AT0, January to June), as a measure of the relative warmth of a locality.

14. The combination of rainfall and temperature at this site means that there is no overall climatic limitation. The site is climatically Grade 1.

## Site

15. The site lies at an altitude of 30 to 35 metres AOD. The land rises gently from the northern boundary towards the railway line.
16. The three site factors of gradient, microrelief and flooding are considered when classifying the land.
17. These factors do not impose any limitations on the agricultural use of this land.

## Geology and Soils

18. The solid geology of the area is comprised of Middle Keuper Marl. This is overlain with deposits of Quaternary Boulder Clay - British Geological Survey (1962 and 1968).
19. The soils that have developed on this geology are generally of a sandy clay loam texture.

## Agricultural Land Classification

20. The details of the classification of the site are shown on the enclosed ALC map and the area statistics of each grade are given in Table 1, page 1.

### *Subgrade 3a*

21. Land of good quality occupies 12.2 hectares (30%) of the site area and extends across the north of the site.
22. The soil has a sandy clay loam texture over sandy clay loam and clay or sandy clay loam to depth. Occasionally these soils have areas of lighter material within them. Observations of gleying and the depth to the slowly permeable layer places these soils in Wetness Class III.
23. The main limitation to the agricultural use of this land is soil wetness.

### *Subgrade 3b*

24. Land of moderate quality occupies 18.2 hectares (44%) of the site area and is found in the south of the site.
25. The soil has a sandy clay loam texture over either sandy clay loam, clay or sandy clay loam to depth. Observations of gleying and the depth to the slowly permeable layer place these soils in Wetness Class IV.
26. The main limitation to the agricultural use of this land is soil wetness.



*Other Land*

27. Other land occupies 10.8 hectares (26%) of the site area and includes woodland, urban and open water (ponds).

Resource Planning Team  
Northern Region  
FRCA Wolverhampton

## SOURCES OF REFERENCE

British Geological Survey Sheet 98 and 110, Stockport (1962) and Macclesfield (1968).  
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England and Wales: Revised guidelines and criteria for grading the quality of agricultural  
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